

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Rita Arguello

GENERAL INFORMATION:

Name:	Hydro Aluminum North America, Inc.
Address:	5801 Riverport Road, Henderson, KY, 42420
Date application received:	May 22, 2007
SIC/Source description:	3365/ Aluminum Foundries
Source I.D. #:	021-101-00130
Source A.I. #:	1817
Activity #:	APE20070001
Permit number:	F-06-035 Revision 1

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
_X_Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input checked="" type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/>	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

**Emissions Potential of Existing Equipment (F-06-035 and F-06-035 Rev 1)**

Pollutant	Potential To Emit (tpy)	Maximum Permitted Allowable (tpy)
CO	120.0	90
NO <sub>x</sub>	55.0	NA
PM	110.0	90
SO <sub>2</sub>	6.51	NA
VOC	97.2	90
Total HAP > 25 tpy	15.4	NA
Single HAP > 10 tpy HCL (CAS 7647-01-0)	9.34	9.0

SOURCE PROCESS DESCRIPTION:

Hydro Aluminum North America, Inc., located in Henderson, Kentucky, is classified as a Secondary Aluminum Production facility. Hydro Aluminum is a remelt plant, where aluminum scrap is recycled into primary aluminum extrusion billets. Purchased scrap is received at the plant and is remelted and processed in natural gas-fired melting, holding, and homogenizing furnaces. The resulting billet products, through alloying and tempering, are designed for specific customer applications.

COMMENTS (Revision 1):

Hydro Aluminum North America, Inc. submitted an application on May 18, to request installing a new lime-injection baghouse and to increase the painted scrap content for the Aluminum Reverberatory Melting Furnace.

They are going to continually take the limited production rate of 130,000 tons per year, self impose limit to preclude major source classification pursuant to 401 KAR 52:020, and major source requirements in 40 CFR 63 Subpart RRR.

This new baghouse will capture the fumes from the Melting Furnace (50 MMBTU) and the Holding Furnace (20 MMBTU) with airflow of 71,500 cubic feet per minute and control efficiency of 98%. Hence, the Holding Furnace and the Melting Reverberatory Furnace have been re-organized under

one Emission Point (EP 01). The existing baghouse will capture the emission from the Drossing.

Hydro Aluminum North America, Inc. will perform the stack test for the new baghouse with up to 100% of the painted scrap. If the performance test results are not in compliance with the emissions standards specified in the permit, Hydro Aluminum should re-test at lower painted scrap content. The facility requested to keep a modification of operation as confidential. We partially agreed to their request. The modification involved 40 CFR 63 Subpart RRR was not accepted to be under Confidential Information.

The permit F-06-035 initially had a regulation of 40 CFR 63 Subpart RRR, Group 1 Furnace without add-on air pollution control device, this permit revision has changed the regulation to 40 CFR 63 Subpart RRR, Group 1 Furnace with add-on air pollution control device with bag leak detection system.

#### EMISSION AND OPERATING CAPS DESCRIPTION:

The facility has requested that all hourly production and emission limits be removed and that the facility be limited only on an annual basis. Source-wide limits of 90 tons per year for emissions of any single criteria pollutant, 9 tons per year any individual HAP, and 22.5 tons per year combined HAP have been applied to replace individual emission point limits. The exception is specific to the Group 1 furnace (Reverberatory Melting Furnace), the applicable limit is 0.00021 grains of D/F TEQ/ton of charge or feed (per 40 CFR 63.1505(i)(3)). Limits on aluminum production and natural gas usage have been 130,000 tons per year and 1035.7 million cubic feet per year respectively. Hydro Aluminum also is allowed to 6,000 tons per year Dross handling and disposal.

#### OPERATIONAL FLEXIBILITY:

Hydro Aluminum has requested that a flexible permit be issued without hourly operating or emission limitations. Hydro Aluminum is regulated by annual facility wide operating cap on production levels and work practices.